

Report Information  
from Dialog DataStar



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## A human identification technique using images of the iris and wavelet transform.

### Dialog eLinks

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### Author(s)

Boles-W-W, Boashash-B.

### Author affiliation

Boles, W.W., Boashash, B., Sch. of Electr. & Electron. Syst. Eng., Queensland Univ. of Technol., Brisbane, Qld., Australia.

### Abstract

A new approach for recognizing the **iris** of the human eye is presented. Zero-crossings of the wavelet transform at various resolution levels are calculated over **concentric circles** on the **iris**, and the resulting one-dimensional (1-D) signals are compared with model features using different dissimilarity functions.

### Descriptors

BIOMETRICS-ACCESS-CONTROL; EYE; FEATURE-EXTRACTION; IDENTIFICATION; IMAGE-MATCHING; IMAGE-RECOGNITION; IMAGE-REPRESENTATION; IMAGE-RESOLUTION; WAVELET-TRANSFORMS.

### Classification codes

B6140C Optical-information-image-and-video-signal-processing\*;  
B0290Z Other-numerical-methods;  
C1250 Pattern-recognition\*;  
C4190 Other-numerical-methods.

### Keywords

human-identification-technique; wavelet-transform; human-eye; **iris**-recognition; resolution-levels; **concentric**-circles; one-dimensional-signals; 1D-signals; model-features; dissimilarity-functions; computer-vision-based-techniques; zero-crossings; matching-algorithm; **iris**-patterns-representation.

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## Search Strategy

| No. | Database | Search term   | Info added since | Results |
|-----|----------|---|------------------|---------|
| 1   | INZZ     | circle\$2 NEAR concentric\$2<br>AND (summation OR<br>integra\$5) AND contour\$2<br>AND circumferen\$4 | unrestricted     | 0       |
| 2   | INZZ     | circle\$2 NEAR concentric\$2  | unrestricted     | 806     |
| 3   | INZZ     | summation OR integra\$5   | unrestricted     | 1009302 |
| 4   | INZZ     | contour\$2  | unrestricted     | 43497   |
| 5   | INZZ     | circumferen\$6  | unrestricted     | 11680   |
| 6   | INZZ     | pupil\$1 OR iris\$2   | unrestricted     | 18127   |
| 7   | INZZ     | 6 AND 2   | unrestricted     | 4       |

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